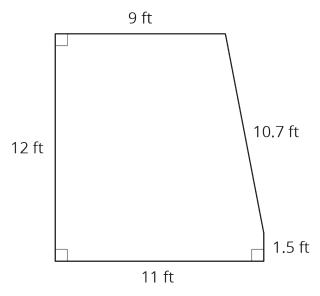# Lesson 16 Practice Problems

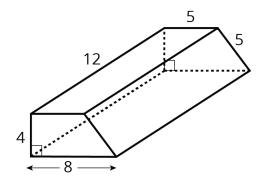1. A landscape architect is designing a pool that has this top view:

a. How much water will be needed to fill this pool 4 feet deep?

b. Before filling up the pool, it gets lined with a plastic liner. How much liner is needed for this pool?

c. Here are the prices for different amounts of plastic liner. How much will all the plastic liner for the pool cost?

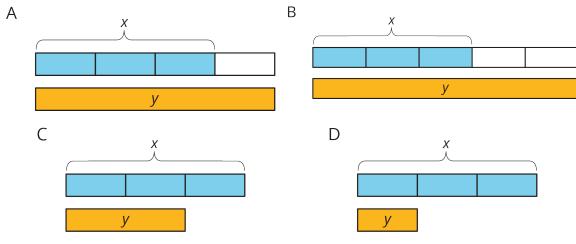| plastic liner (ft^2)	cost ($)
25	3.75
50	7.50
75	11.25

2. Shade in a base of the trapezoidal prism. (The base is not the same as the bottom.)

a. Find the area of the base you shaded.

b. Find the volume of this trapezoidal prism.

3. For each diagram, decide if y is an increase or a decrease of x. Then determine the percentage that x increased or decreased to result in y.

4. Noah is visiting his aunt in Texas. He wants to buy a belt buckle whose price is $25. He knows that the sales tax in Texas is 6.25%.

a. How much will the tax be on the belt buckle?

b. How much will Noah spend for the belt buckle including the tax?

c. Write an equation that represents the total cost, c, of an item whose price is p.